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Contemporary Projections of Utah's Population Portend Relatively Small Increases in Higher Education Enrollments

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Introduction

Remarkable changes have come about in the dynamics of growth in Utah's population from the very expansionary decade of the 1970's. Between 1970 and 1980 the number of Utahns born per year expanded from 27,000 to nearly 42,000, while annual deaths increased only from 7,000 to 8,103. Utah births of 327,759 during the decade minus deaths of 75,264 contributed a quarter of a million to the 1970 census population of 1,059,273. However, the 1,461,037 Utah residents included in the 1980 census amounted to roughly 150,000 more than the decade's natural increase of 252,495, for an imputed net in-migration over the period equivalent to 14.2 percent of the 1970 population.

In 1980, the excess of births over deaths was expanding the Utah population at a rate of 2.3 percent per year while net in-migration was contributing an additional 10,000 to 20,000 each year, depending on the flux in employment and economic conditions. By 1985 decreasing fertility rates and changing age composition had dropped the natural rate of increase to less than 1.8 percent per year and slowly expanding employment opportunities were contributing to net out-migration that was subtracting 7,000 to 8,000 per year from the Utah population[1]. Very substantial disparities in the sizes of possible future populations are implied by these differences in patterns of change. The 1980 processes of expansion (2.3 percent per year) applied for five years to the 1985 Utah population of 1.645 million persons would, for 1990, yield something like 1,918,000. The 1985 pattern of change, extended for five years (1.8 percent per year), generates 1,757,000 for the 1990 population. A difference in populations of 161,000 in only this short of a horizon, in general, has major implications for both the weight of the burdens placed on society and the capability of the economy to bear the loads.

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[1] These observations and calculations are based on data found in "1986 Population Estimates for Utah" by Brad T. Barber and Jeanine M. Taylor, Utah Economic and Business Review, Vol. 46, No. 12, Bureau of Economic and Business Research, University of Utah (Salt Lake City, U

General descriptions of the overall size of a population are quite inadequate for analysis when the burdens and capabilities are those of programs or institutions serving a particular segment of society. Elementary education is a notable case where the high birth numbers of five to ten years ago are now being imposed on the Utah school system even though the numbers of new first graders will be falling sharply in the next few years. Obviously, the important tasks of projecting elementary and secondary enrollments are complicated. But, as higher education serves a wider segment of society, in turn with fluctuating demands for service, the projection of university and college enrollments is far more difficult than projecting the relatively lock-stepped populations served in elementary and secondary education.

This article does not attempt a comprehensive projection of demands for future service across the Utah system of higher education. Rather, it is intended to provide a sketch of a plausible future of enrollments in a central block of the Utah system with an additional objective of demonstrating the utility of employing the disaggregated age-and sex-specific projections of the State of Utah's Office of Planning and Budget in this fashion.

The 1987 Baseline Projection

The population projections by gender and by single year of age embody in simple tables the consequences of multitudes of calculations performed on numerous judgments and analytical inputs. The procedures and assumptions employed in the "Baseline" series used here are described in the report 1987 Baseline Projections[2] which also contains the following brief summary of the nature of the projection.

> This projection is called Baseline 1987. A baseline projection reflects the future based on the existing economic structure of the area and the changing demographic characteristics of the population. The baseline is not a prediction or forecast of the future, but rather an attempt to depict the direction current trends are likely to take without major changes in the economic base. For example, Baseline 1987 does not assume synfuels development will occur, nor projects like the nuclear waste repository in Southeastern Utah. On the other hand, the current projections have taken into consideration the reopening schedule of Kennecott. Also it is assumed that Geneva Steel will not reopen during the projection period. Alternative projections which assume major changes in the economic base may be compared to the baseline projection to determine their impact. ...[3]

The broad implications of the baseline assumptions for the size of Utah's population are displayed in Table 1. The age groups selected for Table 1 were intended to focus attention on the 18 to 24 year-olds traditionally thought to be the college-attending ages, but it should be kept in mind that the analysis of enrollments was performed with the single year of age- and sex-specific detail provided by the projection report. (It will further be developed that some of the complexities encompassing enrollment projections are being caused by departures from "traditional ages of attendance.")

Utah's system of education was subjected to very consequential cross-currents of population change in just the five years between 1980 and 1985. Much of the present day concern with elementary school enrollments understandably arises because of the concentration in a narrow age band of the nearly 70,000 increase in population under the age of 18. Perhaps surprisingly, the 13,000 decrease shown in Table 1 for persons 18 through 24 between 1980 and 1985 was associated with an increase from 39,617 to 46,783 in the autumn headcount[4] of resident enrollments at Utah's public universities and four year colleges (University of Utah, Utah State University, Weber State College, and Southern Utah State College). The possibility is apparent that the enrollment increase may be related to the nearly 40,000 increase in those of ages 25 through 34. Clearly, more detailed data than these for the broad age groups must be examined, but it is useful to consider the trends over time in the broad age groups described in Table 2.

[2] Utah Office of Planning and Budget, 1987 Baseline Projections, Salt Lake City, Utah April 1987.

[3] 1987 Baseline Projections, page 2.

[4] Headcounts accumulated for Fall, 1980, and Fall, 1985 from Utah System of Higher Education 1987-88 Data Book, Office of the Commissioner of Higher Education, January 1987, pages 7, 10, 13 and 16.

Table 1
Utah Population by Broad Age Groups
1980 - 2010
(thousands of persons)

Ages/Year	1980	1985	1990	1995	2000	2005	2010
0-17	540.105	609.4	634.0	643.6	630.5	659.2	731.9
18-24	216.304	203.2	204.5	229.2	264.9	267.0	261.9
25-34	240.775	279.4	285.1	275.2	279.3	331.9	398.9
35-44	142.806	185.3	234.7	271.9	277.0	270.6	294.4
45-64	211.827	223.4	246.7	293.5	359.8	436.6	506.8
65+	109.220	139.9	168.6	190.6	204.7	221.0	249.7
Total	1,461.037	1,640.6	1,773.5	1,904.0	2,016.2	2,186.4	2,443.5

Sources: 1980: Bureau of the Census, Census of Population, General Population Characteristics, Utah, PC 80-1-B46;
Estimates and Projections for Other Years: 1987 Baseline Projections. Utah Office of Planning and Budget, Salt Lake City, Utah (April 1987).

Table 2
Projected Relative Size of the Utah Population
at Five-Year Intervals by Broad Age Groups

	Relatives:					
Ages	1985 to 1980	1990 to 1985	1995 to 1990	2000 to 1995	2005 to 2000	2010 to 2005
0-17	1.128	1.040	1.015	0.980	1.045	1.110
18-24	0.940	1.006	1.121	1.155	1.008	0.981
25-34	1.161	1.020	0.965	1.015	1.188	1.202
35-44	1.298	1.266	1.159	1.019	0.977	1.088
45-64	1.055	1.104	1.190	1.226	1.214	1.161
65+	1.281	1.205	1.131	1.074	1.080	1.130
All Ages	1.123	1.081	1.074	1.059	1.084	1.118

Source: Calculated from data presented in Table 1.

Table 2 describes the trends as relative changes over five-year intervals. Persons ages 18 through 24 were estimated in 1985 to be 94 percent of the population 18 through 24 in 1980. Moving to the right in the same row reveals a value of 1.006 for 1990 over 1985; that is, the number of Utahns of ages 18 through 24 is projected to be only 6/10 of 1 percent larger in 1990 than in 1985. The decade of the 1990s displays the period of expected rapid increase in this age group with more than a 12 percent increase shown for the first five years, which then increases further to an expansion by 15.5 percent over the 1995 to 2000 interval. The changing, potential contribution by this age group to future college enrollments because of these fluctuations in rates of expansion is apparent, but the total impact of changes in this age group and those in the 25 through 34 year-olds is not at all obvious. The 1990's expansion in the 18 to 24 age group is expected to take place while the 25 through 34 year-old age group is actually decreasing in total numbers. The net effect on college enrollments will be the outcome of differences in the rates at which the age groups contribute to college enrollments, weighted by the relative sizes of the populations of the age groups. And, clearly, analysis along these lines should not be confined to age groups as broad as 18-24 and 25-34; even if it were the case that specific ages enroll at constant rates from one year to another, the age composition of broad age groups is far from being fixed over time.

Age- and Sex-Specific Enrollment Rates

Very interesting variations in rates of enrollment from one year of age to another emerge from the data on Utah resident enrollments. The Autumn headcounts at four-year, public institutions are detailed in Table 3 for Utah residents with regular, on-campus, for-credit enrollment. These restrictive qualifications ignore appreciable numbers with other forms of enrollment, but provide a focus on the category of student where changing numbers have direct implications for changes in the economic

burden on the State of Utah. Data this narrowly qualified have only recently become available. In particular, there is no ability to compare corresponding enrollments for 1979 or 1980 against the standard of the 1980 enumeration of the Utah population of the U. S. Census, as enrollment data for 1980 are not available in this detail.

The 1985 and 1986 headcounts can be related to the age- and sex-specific estimates of the Utah population developed for the 1987 Baseline Projection discussed earlier. Estimates, necessarily, are less accurate than enumerations so the very precise headcount data are blended with the population estimates to form average Autumn enrollment rates over 1985 and 1986 instead of separate estimates for 1985 and 1986. Year-specific enrollment rate estimates were not calculated as they could all too easily indicate short term trends in enrollment rates, that are in fact only the consequence of errors in the estimation of the population by specific year of age. The age- and sex-specific population estimates used are presented in Table 4, and it should be noted that they were adjusted from the numbers contained in the "Baseline 1987" projections. The original estimates are survived forward in one-year steps with years of age defined as of April 1. These populations were adjusted to be commensurate with the Autumn determination of age by assigning to age "i" in year "t" the average of the numbers for age "i-1" and "i" in year "t" and ages "i" and "i+1" in year "t+1". The resulting estimates of enrollment rates displayed in Table 4 are presented in Chart 1.

The graph in Chart 1 shows a marked difference in the pattern of enrollments by age between males and females as of the 1985-86 period. The peak female enrollment of 16.3 percent of 19-year-olds slightly exceeds the peak male rate of 16.0 percent of 22-year-olds; but not only does the peak male rate occur at an older age, it also has risen from a trough at age 20 following an earlier, and lower peak at age 18. These cross-sectional rates suggest interesting dynamics of mission or military service, family formation, and return (especially by females) to unfinished programs.

It should be emphasized that cross-sectional data are not good substitutes for year-by-year rates of cohorts as they pass through time. For a hypothetical example, it is possible that 23 year-old females in 1985 were enrolled at higher rates than were 23 year-old females in 1970; and as a direct consequence of higher completion rates now, that 38 year-olds in the year 2000 may be enrolling at lower rates than did 38 year-olds in 1985. Thus, even an extreme assumption of steady "life-cycle" behavior from this moment on does not justify an extension in time of the contemporary "cross-sectional" rates. The currently available data suggest many avenues for analysis that were not previously possible, but the projections reported here must be understood to be only indicative of future conditions, and are subject to substantial refinement as investigations into the determinants of higher educational enrollments take place. Still, even if only as indicators, the implications of these recent, cross-sectional enrollment rates are quite surprising.

Projected Autumn headcounts at five-year intervals of residents in regular, on-campus, for-credit enrollments at Utah's public, four-year colleges and universities are shown in Table 5. This subcategory of enrollments is calculated to expand by 4.1 percent between 1985 and 1990 with the most rapidly increasing segment -- persons 35 through 44 years of age -- growing at a rate of 4.4 percent per year. The traditional attendance years of 17-24 expand over this interval at less than 1 percent per year while the 25 through 34 year-olds actually decreases in size. The decrease in the 25-34 age group is concentrated in the under 30 segment which, because of the relatively large contribution to enrollments made by this group, produces a near-term future of modest growth.

It should not be assumed that credit hours or costs expand or contract simplistically with changes in total numbers nor that the goals of society are best approximated expansion with present compositions and structures of enrollments. However, the relatively low rates of expansion projected in this category of enrollments are particularly modest in the context of the rapid growth shown in Table 1 to be expected in the segment of the society in the generally economically advantaged portion of their life cycle -- the years 45 to 64. The growth projected in the resident Autumn headcounts exceeds 2.1 percent per year between 1995 and 2000, which is substantially up from the 1.7 percent per year projected between 1990 and 1995. However, these rates are about one-half the growth rates of 4.2 percent per year that can be calculated for the projected total population 45 - 64 shown on Table 1.

The trends sketched in Chart 2 of accumulated for credit, on-campus resident enrollments show the enrollment increases following 1990 to be initially concentrated in the 17-24 age group; then after 2000 to switch to the 25-34 segment. The enrollments in the group 45 and over have a sustained, high growth rate but contribute relatively little to total enrollments.

Table 3
Regular, On-Campus, For-Credit Resident Enrollments
at Utah's Public Four-Year Colleges and Universities
Autumn Headcounts: 1985 and 1986
by Age and Sex

Age	1985 Male	1985 Female	1985 Unknown	1985 Sum	1986 Male	1986 Female	1986 Unknown	1986 Sum
17 & under	76	158	1	235	105	127	2	234
18	1,805	1,907	1	3,713	1,873	2,143	4	4,020
19	1,435	2,300	0	3,735	1,408	2,290	6	3,704
20	1,275	2,007	4	3,286	1,258	2,162	6	3,426
21	2,167	1,832	4	4,003	2,105	1,788	8	3,901
22	2,425	1,400	7	3,832	2,470	1,463	3	3,936
23	2,434	1,038	3	3,475	2,339	1,088	7	3,434
24	2,184	855	3	3,042	2,053	811	11	2,875
25	1,733	681	1	2,415	1,745	696	6	2,447
26	1,371	543	4	1,918	1,347	582	10	1,939
27	1,062	494	3	1,559	1,067	505	7	1,579
28	811	498	5	1,314	832	451	7	1,290
29	654	431	1	1,086	705	473	6	1,184
30-34	2,152	1,964	13	4,129	2,225	1,953	17	4,195
35-39	945	1,405	15	2,365	963	1,510	18	2,491
40-44	404	831	6	1,241	433	930	12	1,375
45-49	209	471	4	684	223	488	5	716
50-54	74	251	0	325	98	238	1	337
55-59	36	108	1	145	47	101	0	148
60-64	33	79	4	116	32	57	0	89
65-69	25	41	4	70	33	50	6	89
70 & over	20	30	3	53	26	38	2	66
Unkown	116	121	15	252	80	75	4	159
All Ages	23,446	19,445	102	42,993	23,467	20,019	148	43,634

Source: Accumulated by the Bureau of Economic and Business Research from unpublished student age information by institution provided by the Utah System of Higher Education, The State Board of Regents, Salt Lake City, Utah.

Table 4
Estimated Utah Population by Age and Sex
and Imputed Resident Enrollment Rates
Over 1985 and 1986

Age	"Baseline 1987" Population Estimates Adjusted to October Ages 1985 Male	1985 Female	1986 Male	1986 Female	Mean Enrollment Rates over 1985 and 1986 for Persons of Known and Imputed Age and Sex: Male	Female
17	13,444	13,098	14,624	14,164	0.7	1.1
18	12,975	13,532	13,449	13,980	14.0	14.8
19	12,082	14,114	11,858	14,257	11.9	16.3
20	12,148	14,506	11,828	14,454	10.6	14.5
21	13,834	14,803	14,209	14,593	15.3	12.4
22	15,346	14,747	15,455	14,456	16.0	9.9
23	15,970	14,663	15,463	14,255	15.3	7.4
24	16,764	15,117	15,633	14,239	13.2	5.7
25	16,992	15,533	16,236	14,708	10.5	4.6
26	15,443	14,943	16,404	15,192	8.6	3.8
27	14,541	14,374	14,964	14,625	7.3	3.5
28	14,622	14,326	14,140	14,088	5.8	3.4
29	14,431	14,188	14,322	14,157	4.8	3.2
30-34	66,839	65,865	68,437	67,462	3.3	3.0
35-39	55,119	54,387	57,633	56,974	1.7	2.6
40-44	40,248	40,270	42,383	42,250	1.0	2.2
45-49	31,990	32,576	33,081	33,497	0.7	1.5
50-54	27,521	28,464	27,812	28,840	0.3	0.9
55-59	26,381	27,675	26,308	27,642	0.2	0.4
60-64	24,050	26,280	24,192	26,431	0.1	0.3
65-69	21,473	24,592	21,990	25,083	0.1	0.2
70+	38,978	57,832	40,936	60,832	0.1	0.1

Sources: Population Estimates--1987 Baseline Projections, Utah Office of Planning and Budget. Adjusted to October Ages by the Bureau of Economic and Business Research.
Enrollment Rates--Calculated by the Bureau of Economic and Business Research as weighted averages from data presented in Table 3.

Chart 3 presents the basis for higher education representing a decreasing, relative burden on the Utah economy over the next generation -- the rapidly expanding part of the Utah population for the next generation is the segment 45 years of age and older. This segment not only places low demands on the system of higher education, but it possesses the preponderance of ability to pay taxes, and to assume the burden of financing the education of its children.

Table 5

Projected Autumn Headcounts for Selected Years
of Regular, On-Campus, For-Credit Resident Enrollments
at Utah's Public Four-Year Colleges and Universities
Using Rates Estimated from 1985 and 1986 Enrollments

with

Relative Changes in Sizes of These Enrollments
at Five-Year Intervals by Broad Age Groups

and

Annually Compounded Growth Rates by Interval

Age Group	1985	1990	1995	2000	2005	2010
17-24	25,470	26,514	29,744	34,288	34,157	33,609
25-34	12,494	12,395	12,109	12,463	15,053	17,501
35-44	3,627	4,494	5,170	5,200	5,061	5,579
45+	1,401	1 521	2,007	2,443	2,848	3,109
All Ages	42,993	45,024	49,029	54,394	57,118	59,798

Interval	1990/1985	1995/1990	2000/1995	2005/2000	2010/2005
17-24	1.041	1.122	1.153	0.996	0.984
25-34	0.992	0.977	1.029	1.208	1.163
35-44	1.239	1.150	1.006	0.973	1.102
45+	1.157	1.238	1.217	1.166	1.092
All Ages	1.047	1.089	1.109	1.050	1.047

Interval Growth Rates	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010
	(Percent per Year, Annually Compounded)				
17-24	0.8	2.3	2.9	-0.1	-0.3
25-34	-0.2	-0.5	0.6	3.8	3.1
35-44	4.4	2.8	0.1	-0.5	2.0
45+	3.0	4.4	4.0	3.1	1.8
All Ages	0.9	1.7	2.1	1.0	0.9

Source: Calculated by the Bureau of Economic and Business Research from the 1987 Baseline Projections, Utah Office of Planning and Budget with Single Year of Age- and Sex-Specific Rates Presented in Table 4.

Chart 1
Estimated Enrollment Rates of Utahns
in Utah's Public Four-Year Institutions

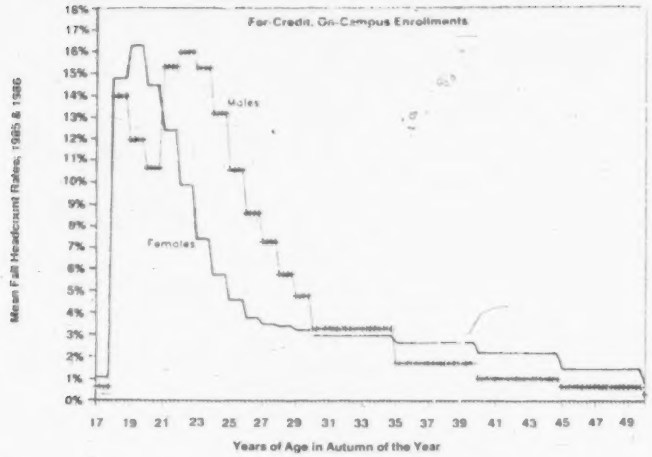


Chart 2
Projected Enrollment of Utahns
in Utah's Public Four-Year Institutions

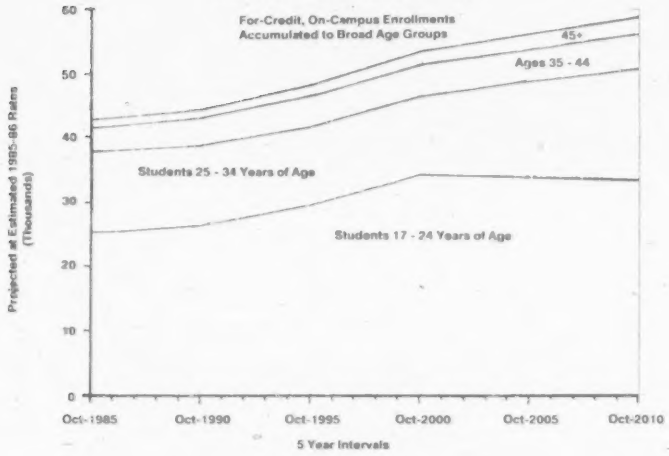
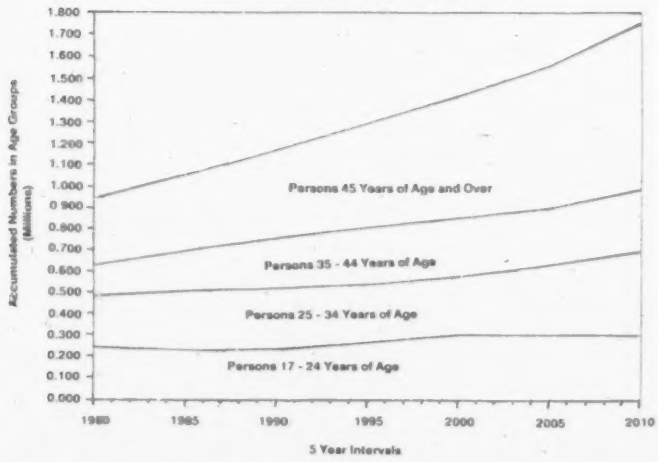


Chart 3
Estimated and Projected Number of Utahns
Selected Broad Age Groups: 1980 to 2010



Utah Business Statistics

UTAH DATA	May 1986	May 1987	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Total Personal Income (seasonally adjusted) (mil. of dol.) (qtly.)	17,879	NA	NA	NA	17,578.5	NA
New Corporations (no.)	479	478	-0.2%	448	452	-1.0%
New Car, Truck and Motorhome Sales (no.)	7,488	NA	NA	NA	6,355	NA
Agriculture						
Average Prices Recorded by Farmers (dol.)						
Beef Steers and Heifers (cwt) (thous.)	52.50	66.80	27.2%	58.74	54.05	8.7%
Lambs (cwt)	69.50	75.70	8.9%	69.48	64.71	7.4%
Milk Wholesale (cwt)	11.30	11.40	0.9%	11.99	11.64	3.0%
Alfalfa Hay, Baled (per ton)	73.00	59.00	-19.2%	64.42	71.48	-9.9%
Cattle Slaughtered (live weight) (thous. of lbs.)	34,230	35,537	3.8%	39,087	34,486	13.3%
Construction						
Total Construction (thous. of dol.) [1]	134,920	106,975	-20.7%	126,732	131,206	-3.4%
Residential	85,543	61,782	-27.8%	59,010	59,123	-0.2%
Nonresidential	41,164	40,486	-1.6%	45,569	44,547	2.3%
Public Works and Utilities	11,213	4,707	-58.0%	22,153	27,786	-20.3%
Total Permit Construction (thous. of dol.) [2]	130,371.5	106,567.1	-18.3%	105,447.3	121,095.4	-12.9%
Residential	80,831.4	54,149.7	-33.0%	54,775.8	60,572.5	-9.6%
Nonresidential	37,680.3	39,663.2	5.3%	37,225.3	46,471.3	-19.9%
Additions, Alterations and Repairs	11,859.8	12,754.2	7.5%	13,466.8	13,551.6	-0.6%
New Dwelling Units (no.)	1,469	851	-42.1%	941	1,223	-23.1%
Employment						
Civilian Labor Force (thous.)	740.3	759.8	2.6%	761.7	751.5	1.4%
Total Employed Persons	702.2	709.9	1.1%	713.9	708.8	0.7%
Unemployed Persons	38.1	49.9	31.0%	47.5	42.5	11.8%
Percent Total Labor Force	5.1	6.6	29.4%	6.3	5.6	10.9%
Employees on Nonagricultural Payrolls (thous. of jobs)	636.8	642.0	0.8%	637.2	631.0	1.0%
Manufacturing	92.5	92.9	0.4%	91.3	94.3	-3.2%
Mining	8.4	8.4	0.0%	8.1	9.0	-9.5%
Contract Construction	34.4	28.6	-16.9%	31.6	35.6	-11.2%
Transportaion, Communication and Utilities	37.0	37.2	0.5%	37.5	36.9	1.6%
Wholesale Trade	35.7	36.3	1.7%	36.1	35.8	1.0%
Retail Trade	116.0	118.9	2.5%	118.2	114.3	3.4%
Finance, Insurance and Real Estate	33.1	33.9	2.4%	33.4	31.8	4.9%
Services [3]	134.8	139.5	3.5%	139.7	134.2	4.1%
Federal Government [4]	40.8	40.2	-1.5%	40.5	39.9	1.5%
State Government [4]	39.1	38.4	-1.8%	37.8	36.6	3.4%
Local Government [4]	65.0	67.6	4.0%	63.8	62.7	1.7%
Average Weekly Hours						
Manufacturing	40.4	39.7	-1.7%	39.7	40.5	-1.8%
Mining	46.7	41.7	-10.7%	42.8	44.7	-4.4%
Wholesale Trade	37.3	40.0	7.2%	37.6	35.5	5.9%
Retail Trade	27.9	28.7	2.9%	28.3	28.2	0.4%
Amount of Unemployment Compensation (thous. of dol.)	7,402.4	6,973.2	-5.8%	8,845.1	7,542.0	17.3%
Finance						
Savings, Savings and Loan Association (mil. of dol.)	2,361.4	2,502.4	6.0%	2,416.1	2,353.8	2.6%
Tax Collections by the State of Utah (thous. of dol.)						
Total Tax Collections	262,198.0	228,408.5	-12.9%	126,674.8	126,199.6	0.4%
Sales and Use Tax	112,358.0	98,703.0	-12.2%	46,088.9	45,101.0	2.2%
Motor Fuel Tax	11,851.1	10,832.3	-8.6%	7,906.8	7,809.8	1.2%
Individual Income Tax	64,467.3	70,466.9	9.3%	44,098.4	37,476.9	17.7%
Corporation Franchise Tax	10,527.1	7,160.8	-31.8%	4,159.5	5,736.7	-27.5%
Production						
Net Electric Power Utilized (mil. of kwh)	1,072.8	1,076.9	0.4%	1,110.4	1,115.0	-0.4%
Crude Oil to Refineries (thous. of bbls.)	4,000.0	3,948.0	-1.3%	3,928.0	3,732.5	5.2%
Crude Oil (thous. of bbls.)	3,443.2	3,068.5	-10.9%	3,047.8	3,502.5	-13.0%
Natural Gas (mil. of cu. ft.)	17,386.3	20,002.0	15.0%	19,974.3	18,693.9	6.9%
Coal (thous. short tons)	1,060.0	1,128.0	6.4%	914.0	1,072.7	-14.8%
Tourism/Travel						
Air Passengers (total no. on and off) (S.L. Int'l Airport)	829,254	786,837	-5.1%	832,078	783,471	6.2%
Highway Traffic Count Across State Lines	36,782	39,389	7.1%	37,898	35,065	8.1%
Transient Room Taxes (thous. of dol.)	1,051.5	927.8	-11.8%	473.3	384.4	23.1%
Visits, State, Nat'l. Parks, Monuments (thous.)	1,537.6	1,499.4	-2.5%	1,010.7	959.8	5.3%
Utilities						
Telephone Lines in Service (Mt. Bell) (Residential)	469,072	478,375	2.0%	475,500	466,239	2.0%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	167,493	175,513	4.8%	171,591	166,355	3.1%
Electric Customers (Residential)	458,706	470,750	2.6%	466,620	NA	NA
Electric Customers (Commercial)	44,950	46,677	3.8%	45,815	NA	NA
Natural Gas Customers (Residential & Commercial)	434,762	446,543	2.7%	440,544	428,045	2.9%
Natural Gas Customers (Industrial)	567	557	-1.8%	563	571	-1.3%

Utah Business Statistics

UTAH DATA	May 1986	May 1987	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Davis County						
Non-Ag. Employment (thous.)	53.4[r]	53.8[fo]	0.7%	53.0	52.9	0.2%
Unemployment Rate	4.1[r]	5.6	36.6%	4.9	3.8	26.9%
Auth. Permit Construction (thous. of dol.)	20,509.0	10,135.8	-50.6%	16,355.9	15,363.8	6.5%
New Dwelling Units (no.)	209	115	-45.0%	179	202	-11.2%
Postal Receipts (thous. of dol.)	356.7	612.5	71.7%	NA	321.2	NA
Electric Customers (Residential)	44,859	47,220	5.3%	46,175	37,942	21.7%
Electric Customers (Commercial)	3,340	3,457	3.5%	3,266	2,807	16.3%
Natural Gas Customers (Residential)	46,062	48,784	5.9%	47,525	45,031	5.5%
Natural Gas Customers (Industrial)	50	52	4.0%	52	50	2.1%
Telephone Lines in Service (Mt. Bell)(Residential)	52,743	54,834	4.0%	53,988	50,086	7.8%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	10,097	10,535	4.3%	10,283	9,634	6.7%
Salt Lake County						
Non-Ag. Employment (thous.)	328.7[r]	334.7[fo]	1.8%	334.7	327.8	2.1%
Unemployment Rate	5.3[r]	5.6	5.7%	5.4	5.6	-2.4%
Auth. Permit Construction (thous. of dol.)	55,025.5	43,286.2	-21.3%	51,502.7	62,369.7	-17.4%
New Dwelling Units (no.)	542	323	-40.4%	409	542	-24.5%
Postal Receipts (thous. of dol.)	7,264.3	7,140.8	-1.7%	7,083.7	7,330.9	-3.4%
Electric Customers (Residential)	231,009	235,420	1.9%	233,707	226,933	3.0%
Electric Customers (Commercial)	19,187	19,856	3.5%	19,597	18,853	3.9%
Natural Gas Customers (Residential)	212,415	217,830	2.5%	215,019	208,401	3.2%
Natural Gas Customers (Industrial)	253	242	-4.3%	251	260	-3.5%
Telephone Lines in Service (Mt. Bell)(Residential)	221,751	226,591	2.2%	224,583	219,348	2.4%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	107,468	109,861	2.2%	108,779	107,247	1.4%
Utah County						
Non-Ag. Employment (thous.)	70.7[r]	69.8[fo]	-1.3%	71.2	71.2	-0.1%
Unemployment Rate	5.6[r]	7.4	32.1%	7.1	6.1	16.8%
Auth. Permit Construction (thous. of dol.)	16,194.0	21,747.1	34.3%	11,225.7	10,295.6	9.0%
New Dwelling Units (no.)	258	147	-43.0%	107	93	15.7%
Postal Receipts (thous. of dol.)	890.7	953.3	7.0%	923.8	916.4	0.8%
Electric Customers (Residential)	49,772	50,677	1.8%	50,171	NA	NA
Electric Customers (Commercial)	6,084	6,524	7.2%	6,236	NA	NA
Natural Gas Customers (Residential)	59,252	59,975	1.2%	59,954	58,962	1.7%
Natural Gas Customers (Industrial)	72	68	-5.6%	73	71	2.8%
Telephone Lines in Service (Mt. Bell)(Residential)	60,251	61,148	1.5%	62,218	61,559	1.1%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	15,766	18,667	18.3%	17,068	15,251	11.9%
Weber County						
Non-Ag. Employment (thous.)	59.8[r]	60.7[fo]	1.5%	59.7	58.2	2.6%
Unemployment Rate	5.9[r]	7.2	22.0%	6.7	5.5	21.6%
Auth. Permit Construction (thous. of dol.)	15,448.5	7,762.2	-49.8%	9,163.6	8,925.9	2.7%
New Dwelling Units (no.)	229	84	-63.3%	74	95	-22.2%
Postal Receipts (thous. of dol.)	613.9	603.6	-1.7%	619.9	603.7	2.7%
Electric Customers (Residential)	51,662	52,652	1.9%	52,300	51,083	2.4%
Electric Customers (Commercial)	4,708	4,822	2.4%	4,778	4,685	2.0%
Natural Gas Customers (Residential)	47,974	49,495	3.2%	48,576	47,383	2.5%
Natural Gas Customers (Industrial)	87	86	-1.1%	86	86	-1.0%
Telephone Lines in Service (Mt. Bell)(Residential)	45,391	46,004	1.4%	45,628	45,181	1.0%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	10,483	10,947	4.6%	10,671	10,502	1.6%

[r] Revised [p] Preliminary na Not available [fo] Forecast

Sources:

Personal Income:	Bureau of Economic Analysis, U.S. Department of Commerce
New Corporations:	Utah Secretary of State
New Car and Truck Sales:	Utah State Tax Commission, Economic and Statistical Unit
Agriculture:	U.S. Department of Agriculture, Agriculture, Utah: Utah Crop and Livestock Reporting Service
Construction Data:	F.W. Dodge Statistics and Utah Construction Report, Bureau of Economic and Business Research
Employment Data:	Utah Department of Employment Security
Savings Information:	Utah Savings and Loan Institutions
Tax Collections:	Utah State Tax Commission
Net Electric Power Utilized:	Cooperating Utah power companies
Crude Oil Production:	Area oil refineries
Natural Gas Production:	Utah Department of Oil, Gas, and Mining
Coal Production:	U.S. Department of Energy
Air Passengers:	Salt Lake City International Airport, Statistics Division
Highway Traffic Count:	Utah Department of Transportation
Visits to State and National Parks and Monuments:	U. S. Forest Service, Utah State Parks and Recreation Department
Utilities Data:	Cooperating Utah utility companies
Postal Receipts:	Postmasters in Davis, Salt Lake, Utah, and Weber Counties

Footnotes:

1 Obtained from F.W. Dodge Statistics
2 Obtained from Utah Construction Report
3 Includes services by nonprofit and religious institutions
4 Includes public schools and college institutions

Utah Business Statistics

UTAH DATA	June 1986	June 1987	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Total Personal Income (seasonally adjusted) (mil. of dol.) (qtly.)	17,879	NA	NA	NA	17,633.8	NA
New Corporations (no.)	445	507	13.9%	453	454	-0.3%
New Car, Truck and Motorhome Sales (no.)	6,037	NA	NA	NA	6,295	NA
Agriculture						
Average Prices Recorded by Farmers (dol.)						
Beef Steers and Heifers (cwt) (thous.)	51.00	66.50	30.4%	60.03	53.68	11.8%
Lambs (cwt)	69.40	76.80	10.7%	70.10	64.99	7.9%
Milk Wholesale (cwt)	11.20	11.40	1.8%	12.01	11.63	3.2%
Alfalfa Hay, Baled (per ton)	71.00	69.00	-2.8%	64.25	71.06	-9.6%
Cattle Slaughtered (live weight) (thous. of lbs.)	37,409	39,501	5.6%	39,261	35,212	11.5%
Construction						
Total Construction (thous. of dol.) [1]	244,093	210,246	-13.9%	123,912	140,747	-12.0%
Residential	75,317	66,920	-11.1%	58,311	60,516	-3.6%
Nonresidential	139,490	56,391	-59.6%	38,644	51,505	-25.0%
Public Works and Utilities	29,286	86,935	196.8%	26,957	28,968	-6.9%
Total Permit Construction (thous. of dol.) [2]	146,093.8	95,014.8	-35.0%	101,190.7	124,259.9	-18.6%
Residential	76,895.5	50,311.4	-34.6%	52,560.4	62,047.0	-15.3%
Nonresidential	50,827.3	27,991.5	-44.9%	35,322.3	47,748.5	-26.0%
Additions, Alterations and Repairs	18,653.4	16,711.9	-10.4%	13,305.0	13,987.9	-4.9%
New Dwelling Units (no.)	1,734	727	-58.1%	857	1,272	-32.6%
Employment						
Civilian Labor Force (thous.)	750.8	761.6	1.4%	762.6	752.2	1.4%
Total Employed Persons	707.0	712.3	0.7%	714.4	709.6	0.7%
Unemployed Persons	40.9	49.3	20.5%	48.2	42.2	14.2%
Percent Total Labor Force	5.5	6.5	18.2%	6.3	5.6	13.3%
Employees on Nonagricultural Payrolls (thous. of jobs)	636.5	643.2	1.1%	637.7	632.0	0.9%
Manufacturing	93.0	93.6	0.6%	91.4	94.0	-2.9%
Mining	7.8	8.1	3.8%	8.2	8.8	-7.6%
Contract Construction	35.6	29.6	-16.9%	31.1	35.4	-12.2%
Transportation, Communication and Utilities	37.2	37.9	1.9%	37.6	37.0	1.7%
Wholesale Trade	36.1	36.5	1.1%	36.2	35.8	1.0%
Retail Trade	116.3	119.5	2.8%	118.4	114.7	3.3%
Finance, Insurance and Real Estate	33.1	34.2	3.3%	33.5	32.0	4.6%
Services [3]	136.2	143.2	5.1%	140.3	134.7	4.1%
Federal Government	40.8	39.8	-2.5%	40.4	40.0	1.1%
State Government [4]	37.7	36.5	-3.2%	37.7	36.8	2.3%
Local Government [4]	62.7	64.4	2.7%	63.9	62.8	1.8%
Average Weekly Hours						
Manufacturing	39.8	39.8	0.0%	39.7	40.4	-1.7%
Mining	40.8	40.0	-2.0%	42.7	44.3	-3.7%
Wholesale Trade	37.3	38.8	4.0%	37.7	35.7	5.8%
Retail Trade	28.6	28.8	0.7%	28.3	28.1	0.8%
Amount of Unemployment Compensation (thous. of dol.)	6,825.1	7,375.1	8.1%	8,890.9	7,640.8	16.4%
Finance						
Savings, Savings and Loan Association (mil. of dol.)	2,361.4	2,476.5	4.9%	2,425.7	2,347.6	3.3%
Tax Collections by the State of Utah (thous. of dol.)						
Total Tax Collections	122,472.5	156,747.8	28.0%	129,531.1	125,093.1	3.5%
Sales and Use Tax	56,912.1	62,358.9	9.6%	46,542.8	45,246.2	2.9%
Motor Fuel Tax	9,860.6	14,960.3	51.7%	8,331.8	7,680.3	8.5%
Individual Income Tax	30,044.0	33,916.5	12.9%	44,421.1	37,628.5	18.1%
Corporation Franchise Tax	508.3	11,481.2	2158.7%	5,073.9	5,622.2	-9.8%
Production						
Net Electric Power Utilized (mil. of kwh)	1,108.6	1,135.0	2.4%	1,112.6	1,117.3	-0.4%
Crude Oil to Refineries (thous. of bbls.)	3,921.3	3,804.9	-3.0%	3,918.3	3,704.9	5.8%
Crude Oil (thous. of bbls.)	2,926.0	2,896.1	-1.0%	3,045.3	3,465.9	-12.1%
Natural Gas (mil. of cu. ft.)	17,535.9	19,950.6	13.8%	20,176.0	18,770.9	7.5%
Coal (thous. short tons)	1,060.0	1,167.0	12.0%	924.6	1,086.7	-14.9%
Tourism/Travel						
Air Passengers (total no. on and off) (S.L. Int'l Airport)	897,797	913,902	1.8%	833,420	786,043	6.0%
Highway Traffic Count Across State Lines	45,298	48,264	6.5%	38,146	34,976	9.1%
Transient Room Taxes (thous. of dol.)	1,016.3	582.5	-42.7%	437.2	463.8	-5.7%
Visits, State, Nat'l. Parks, Monuments (thous.)	1,733.4	1,977.6	14.1%	1,031.1	956.5	7.8%
Utilities						
Telephone Lines in Service (Mt. Bell) (Residential)	468,349	477,221	1.9%	476,240	467,144	1.9%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	167,803	175,281	4.5%	172,214	166,418	3.5%
Electric Customers (Residential)	459,233	467,881	1.9%	467,341	NA	NA
Electric Customers (Commercial)	45,117	46,273	2.6%	45,912	NA	NA
Natural Gas Customers (Residential & Commercial)	433,460	443,654	2.4%	441,393	429,167	2.8%
Natural Gas Customers (Industrial)	564	556	-1.4%	563	569	-1.2%

Utah Business Statistics

UTAH DATA	June 1986	June 1987	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Davis County						
Non-Ag. Employment (thous.)	54.0[r]	54.4[fo]	0.7%	53.1	53.1	0.0%
Unemployment Rate	4.5[r]	5.6	24.4%	5.0	3.9	27.4%
Auth. Permit Construction (thous. of dol.)	27,750.0	12,728.7	-54.1%	15,104.1	16,345.6	-7.6%
New Dwelling Units (no.)	580	120	-79.3%	141	236	-40.2%
Postal Receipts (thous. of dol.)	330.1	347.4	5.2%	NA	322.6	NA
Electric Customers (Residential)	44,843	47,121	5.1%	46,365	38,974	19.0%
Electric Customers (Commercial)	3,277	3,271	-0.2%	3,265	2,879	13.4%
Natural Gas Customers (Residential)	46,153	48,677	5.5%	47,736	45,209	5.6%
Natural Gas Customers (Industrial)	50	86	72.0%	55	50	8.1%
Telephone Lines in Service (Mt. Bell)(Residential)	52,955	54,959	3.8%	54,135	51,230	5.7%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	10,123	10,575	4.5%	10,321	9,847	4.8%
Salt Lake County						
Non-Ag. Employment (thous.)	331.9[r]	338.0[fo]	1.8%	335.2	328.2	2.1%
Unemployment Rate	5.2[r]	5.6	7.7%	5.5	5.6	-1.5%
Auth. Permit Construction (thous. of dol.)	75,616.3	42,610.0	-42.3%	48,835.5	64,781.9	-24.6%
New Dwelling Units (no.)	688	274	-60.2%	374	562	-33.4%
Postal Receipts (thous. of dol.)	7,116.9	6,786.3	-4.6%	7,056.1	7,398.3	-4.6%
Electric Customers (Residential)	229,986	234,279	1.9%	234,064	227,603	2.8%
Electric Customers (Commercial)	19,264	19,792	2.7%	19,641	18,918	3.8%
Natural Gas Customers (Residential)	211,694	216,415	2.2%	215,413	209,087	3.0%
Natural Gas Customers (Industrial)	258	241	-6.5%	249	259	-3.7%
Telephone Lines in Service (Mt. Bell)(Residential)	221,901	226,229	2.0%	224,943	219,852	2.3%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	107,632	109,682	1.9%	108,950	107,091	1.7%
Utah County						
Non-Ag. Employment (thous.)	71.1[r]	71.0[fo]	-0.1%	71.2	71.5	-0.4%
Unemployment Rate	5.6[r]	7.1	26.8%	7.3	6.1	20.0%
Auth. Permit Construction (thous. of dol.)	13,799.9	13,321.5	-3.5%	11,185.9	10,712.2	4.4%
New Dwelling Units (no.)	162	96	-40.7%	102	98	4.2%
Postal Receipts (thous. of dol.)	854.4	903.0	5.7%	927.8	917.1	1.2%
Electric Customers (Residential)	49,310	50,225	1.9%	50,247	NA	NA
Electric Customers (Commercial)	6,189	6,587	6.4%	6,330	NA	NA
Natural Gas Customers (Residential)	59,080	59,591	0.9%	59,996	59,043	1.6%
Natural Gas Customers (Industrial)	73	68	-6.8%	72	71	2.1%
Telephone Lines in Service (Mt. Bell)(Residential)	60,141	61,134	1.7%	62,300	61,642	1.1%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	15,825	18,459	16.6%	17,287	15,349	12.6%
Weber County						
Non-Ag. Employment (thous.)	60.0[r]	60.9[fo]	1.5%	59.8	58.5	2.3%
Unemployment Rate	6.5[r]	7.7	18.5%	6.8	5.5	22.1%
Auth. Permit Construction (thous. of dol.)	7,603.0	9,470.0	24.6%	9,319.5	8,626.8	8.0%
New Dwelling Units (no.)	87	69	-20.7%	73	95	-23.7%
Postal Receipts (thous. of dol.)	544.2	605.1	11.2%	625.0	604.1	3.5%
Electric Customers (Residential)	51,519	52,615	2.1%	52,392	51,203	2.3%
Electric Customers (Commercial)	4,714	4,840	2.7%	4,788	4,696	2.0%
Natural Gas Customers (Residential)	47,812	48,582	1.6%	48,640	47,465	2.5%
Natural Gas Customers (Industrial)	87	86	-1.1%	86	87	-1.3%
Telephone Lines in Service (Mt. Bell)(Residential)	45,367	45,935	1.3%	45,675	45,215	1.0%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	10,498	10,999	4.8%	10,713	10,514	1.9%

[r] Revised [na] Not available [fo] Forecast

Sources:

Personal Income:	Bureau of Economic Analysis, U.S. Department of Commerce
New Corporations:	Utah Secretary of State
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Footnotes:

1 Obtained from F.W. Dodge Statistics
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3 Includes services by nonprofit and religious institutions
4 Includes public schools and college institutions

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NATIONAL DATA

	June 1986	June 1987	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
U.S. Gross National Product (seasonally adjusted) (bil.) (qtly.)	4,175.6	4,447.7	6.5%	4,331.2	4,100.8	5.6%
Total Personal Income (seasonally adjusted) (bil. of dol.)	3,481.9	3,723.2	6.9%	3,600.6	3,392.2	6.1%
Industrial Production Indexes (seasonally adjusted) (1977=100)	124.2	128.8	3.7%	126.5	124.9	1.3%
Total Non-Farm Bus. Expend. on New Plants & Equip. (bil.) (qtly.)	375.9	392.0	4.3%	381.9	383.1	-0.3%
Index of Leading Indicators (1967=100)	178.4	191.8	7.5%	184.8	173.7	6.4%
Price Indexes						
Consumer Price Indexes (not seasonally adjusted) (1967=100)						
CPI-U (All Urban Consumers) All Items	327.9	340.1	3.7%	333.2	326.0	2.2%
CPI-U (All Urban Consumers) Food & Beverages	309.5	325.4	5.1%	318.9	313.2	1.8%
CPI-U (All Urban Consumers) Housing	361.2	371.3	2.8%	364.8	356.0	2.5%
CPI-U (All Urban Consumers) Transportation	308.6	316.7	2.6%	310.6	316.7	-1.9%
CPI-U (All Urban Consumers) Medical Care	432.0	461.3	6.8%	448.4	417.8	7.3%
CPI-U (All Urban Consumers) Energy	380.6	380.6	0.0%	358.3	408.9	-12.4%
Producer Price Index (not seasonally adjusted) (1967=100)						
Producer Price Index, All Finished Goods	288.9	296.8	2.7%	291.6	292.4	-0.3%
GNP Price Deflator (1982=100) (qtly.)	114.0	117.2	2.8%	115.9	113.2	2.4%
Civilian Employment (seasonally adjusted)						
Total Civilian Labor Force (mil.)	118.1	119.5	1.2%	118.8	116.6	2.0%
Total Civilian Employment (mil.)	109.7	112.2	2.3%	110.9	108.3	2.4%
Unemployment Rate	7.1	6.1	-14.1%	6.7	7.1	-6.1%
Construction						
Total Construction (mil. of dol.)	21,649.2	24,712.0	14.1%	19,883.1	18,966.2	4.8%
Residential	10,976.9	10,986.4	0.1%	9,665.4	9,183.7	5.2%
Nonresidential	6,760.9	8,227.2	21.7%	6,632.2	6,442.2	3.0%
Non-Building	3,911.4	5,498.4	40.6%	3,560.5	3,340.4	6.6%
New Dwelling Units (no.)	160,846	143,985	-10.5%	133,265	144,321	-7.7%
Interest Rates						
Short Term (3-month Treasury bill rate)	6.21	5.69	-8.4%	5.54	6.82	-18.8%
Long Term (30-year Treasury bond yields)	8.23	8.63	4.9%	7.99	9.36	-14.9%
Prime Rates Charged by Banks on Short-term Business Loans (ave.)	8.50	8.25	-2.9%	7.73	9.24	-16.4%
Mortgage Rates (new homes)	9.74	9.05	-7.1%	9.29	10.34	-10.2%

Sources: Business Conditions Digest, U.S. Department of Commerce: U.S. Gross National Product, Total National Personal Income, Industrial Production Indexes, Total Business Expenditures for New Plant and Equipment, Index of Leading Indicators, GNP Price Deflator, National Employment Data, Interest Rates.

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